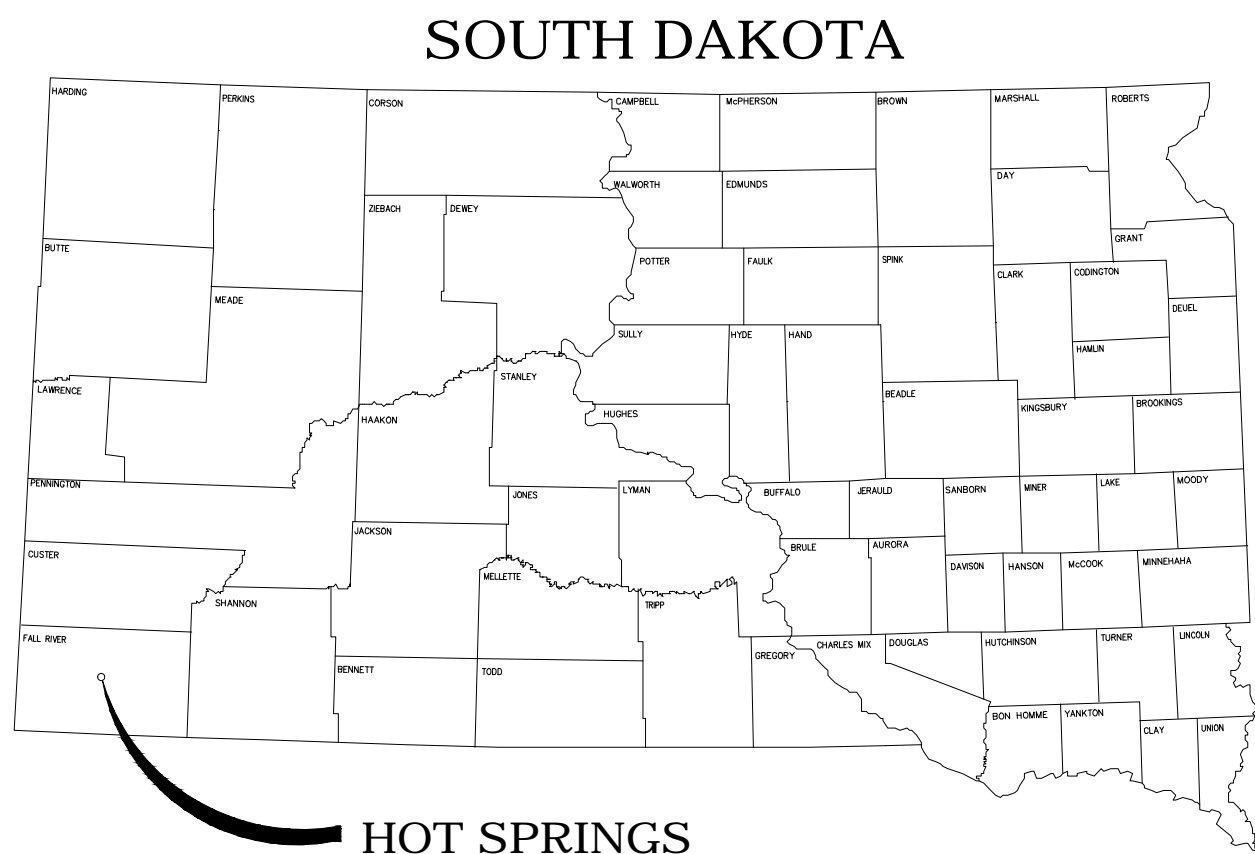


SV & BP ROAD REPAIR

VETERANS ADMINISTRATION - BLACK HILLS HEALTH CARE SYSTEM HOT SPRINGS, SD

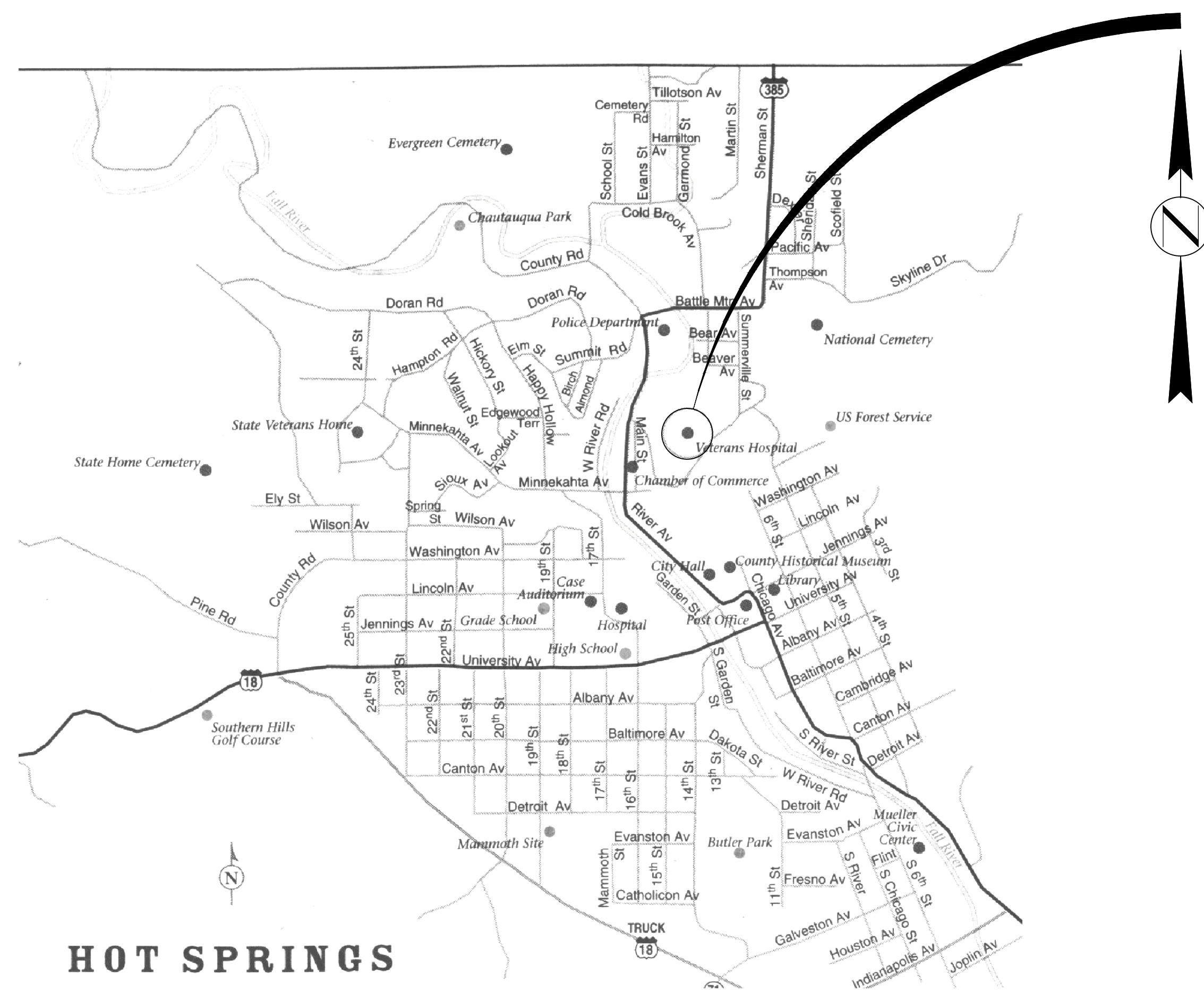


PROJECT NO. 568-13-207

INDEX OF SHEETS

X-1	COVER SHEET
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PROJECT
LOCATION



HOT SPRINGS

PROJECT LOCATION MAP

NOT TO SCALE

ONE CALL
BEFORE DIGGING
1-800-781-7474



BID DOCUMENTS

Office of
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HSVA
REPAIR SUMMERVILLE
ENTRANCE
AND BP ROAD
VETERANS
ADMINISTRATION
HOT SPRINGS, SOUTH DAKOTA

REVISIONS:

Project Number: 568-13-207

Date: 2/8/13

COVER
SHEET

X-1

2013 DEPT OF VETERANS AFFAIRS

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PROJECT INTENT:

IT IS THE GENERAL INTENT OF THIS PROJECT TO REMOVE AND REPLACE ROADWAY, CURB AND GUTTER, AND APPURTENANT STRUCTURES TO MATCH EXISTING ALIGNMENT WIDTHS AND GRADES SO FAR AS PRACTICABLE. THE DESIGNS WERE DEVELOPED TO MINIMIZE DISTURBANCE AND GRADING OUTSIDE THE DEMOLITION LIMITS. WHERE NEW ALIGNMENTS AND GRADES ARE REQUIRED, THEY ARE SPECIFICALLY CALLED OUT ON THE PLANS. OTHERWISE NEW CONSTRUCTION SHALL GENERALLY MATCH EXISTING ALIGNMENTS, WIDTHS, AND GRADES.

IN MANY CASES THE DESIGN CENTERLINE ALIGNMENTS DO NOT MATCH ACTUAL CENTERLINE, AS THE WERE DEVELOPED FOR LAYOUT AND QUANTITIES ONLY. FITTING OF CURVES, SLOPES, AND WIDTHS TO MATCH PRE-CONSTRUCTION CONDITIONS MAY REQUIRE SOME ADJUSTMENTS BY THE CONTRACTOR TO PROVIDE AN IMPROVED TRAVELED WAY AND DRAINAGE CONDITIONS. DURING THE COURSE OF THE WORK, THE CONTRACTOR SHALL NOTIFY THE VA PROJECT ENGINEER OF POTENTIAL DESIGN ADJUSTMENTS TO THE PLANS WHICH WOULD IMPROVE DRAINAGE AND ACCESSIBILITY.

GENERAL NOTES:

- SPECIFICATIONS TO BE USED: ALL WORK SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF VETERANS AFFAIRS MASTER SPECIFICATION TO INCLUDE STANDARD TECHNICAL SPECIFICATIONS, GENERAL CONDITIONS, GENERAL REQUIREMENTS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIFIC PROVISIONS AS PER THE PLANS AND PLAN NOTES, EXCEPT AS NOTED.
 - THE UTILITY LINE LOCATIONS ARE APPROXIMATE. THE SITE UTILITIES NOTED ON THE DRAWINGS WERE LOCATED BY THE VA MEDICAL CENTER PERSONNEL. THE CONTRACTOR SHALL NOTIFY ONE CALL AND THE MEDICAL CENTER PERSONNEL 48 HOURS PRIOR TO BEGINNING CONSTRUCTION TO HAVE UTILITIES MARKED.
- THE FOLLOWING ARE THE UTILITY CONTACTS FOR COORDINATION: ONE CALL OF SOUTH DAKOTA
- 811 1-800-781-747
- HOT SPRINGS VA MEDICAL CENTER
PROJECT ENGINEER WADE LEIN - 605-745-7256
- IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD INSPECT THE PROJECT LIMITS PRIOR TO CONSTRUCTION AND DETERMINE SIZE, NUMBER AND LIMITS OF VISIBLE OBSTRUCTIONS WHICH ARE TO BE REMOVED, RELOCATED OR SALVAGED INCLUDING TREES, UTILITIES, ETC.
 - THE CONTRACTOR WILL NOT BE ALLOWED TO BEGIN DEMOLITION IN ANY PHASE WITH CERTAINTY THAT RESURFACING AND OTHER IMPROVEMENTS CAN BE COMPLETED PRIOR TO WINTER SHUTDOWN OF BATCH PLANTS. STREETS AND SIDEWALKS WILL NOT BE ALLOWED TO REMAIN UNFINISHED DURING THE WINTER MONTHS.
 - THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING, WITH OWNER APPROVAL, A STAGING/STOCKPILE AREA FOR MATERIALS AND/OR EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR THE SECURITY AND PROTECTION OF ALL STORED MATERIALS. THE CONTRACTOR SHALL RECLAIM THE AREA(S) TO THE SATISFACTION OF THE OWNER.
 - ALL DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION AT PROJECT COMPLETION.
 - ADEQUATE PROVISIONS SHALL BE MADE FOR MAINTAINING OR DIVERTING THE FLOW OF DRAINS AND WATER COURSES ENCOUNTERED DURING ANY CONSTRUCTION.
 - IF WATER FROM TEMPORARY DEWATERING WILL BE DISCHARGED TO WATERS OF THE STATE DURING CONSTRUCTION, THE CONTRACTOR MUST FIRST GET COVERAGE UNDER THE DEPARTMENTS (SD DENR) GENERAL PERMIT FOR TEMPORARY DEWATERING. WATER FROM DEWATERING OR OTHER USES WILL NOT BE ALLOWED TO REACH NAVIGABLE WATER(S) AS DEFINED BY SD DENR.
 - THE CONTRACTOR IS REQUIRED TO SUBMITT A DETAILED EROSION CONTROL PLAN AND TRAFFIC CONTROL PLAN BEFORE CONSTRUCTION BEGINS. THE EROSION CONTROL PLAN SHALL INCLUDE ALL NEARBY BODIES OF WATER (FALL RIVER). THE TRAFFIC CONTROL PLAN SHALL ENSURE EMERGENCY AND FUEL ACCESS AT ALL TIMES.
 - THE CONTRACTOR SHALL MEASURE AND RECORD ANY HORIZONTAL OR VERTICAL DEVIATIONS FROM THE CONTRACT DRAWINGS. THE CHANGES SHALL BE RECORDED IN AN ACCURATE, NEAT FASHION. DRAWINGS SHALL BE FURNISHED TO THE OWNER WITHIN 14 DAYS OF COMPLETION OF THE PROJECT. SPECIFICALLY, ALL SERVICE TAPS, CONNECTIONS, AND BURIED FITTINGS SHALL BE RECORDED FOR THE WORK. THE AS-BUILT DRAWINGS SHALL BE ON-SITE AND AVAILABLE FOR REVIEW BY THE VA PROJECT ENGINEER.
 - THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGED ITEMS. COORDINATE WITH THE VA PROJECT ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR THE SECURITY AND PROTECTION OF ALL STORED MATERIALS. THE CONTRACTOR SHALL RECLAIM THE AREA(S) TO THE SATISFACTION OF THE OWNER.
 - ALL WORK REQUIRED FOR COMPLETION OF THE PROJECT BUT NOT INCLUDED AS A BID ITEM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
 - EMERGENCY ACCESS. IN GENERAL, ENTIRE STREET SECTIONS WILL BE ALLOWED TO BE CLOSED TO THE PUBLIC DURING CONSTRUCTION. HOWEVER, EMERGENCY (FIRE, POLICE, AND AMBULANCE) ACCESS THROUGH THE WORK AREA WILL NEED TO BE PROVIDED AT ALL TIMES. DURING NON-WORKING HOURS, THE CONTRACTOR SHALL SET ADEQUATE BARRICADES TO KEEP THE PUBLIC FROM THE WORK AREA, BUT SHALL PROVIDE SOME MEAS OF ACCESS FOR EMERGENCY VEHICLES.
 - OTHER WORK. IT IS LIKELY THAT OTHER WORK ACTIVITIES WILL BE IN PROGRESS DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION SCHEDULE TO THE VA PROJECT ENGINEER, WHO WILL THEN COORDINATE AND SCHEDULE OTHER CONSTRUCTION TO

MINIMIZE IMPACTS TO WORK. THE CONTRACTOR SHALL EXPECT THAT THE ROAD PHASE BEING CONSTRUCTED WILL BE NEEDED OCCASIONALLY FOR ACCESS BY OTHER CONTRACTORS AND CONSTRUCTION EQUIPMENT.

CONSTRUCTION NOTES:

- CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DETOURS AND TRAFFIC CONTROL MEASURES, INCLUDING PROTECTION OF EXCAVATIONS, FLAGGING SERVICES, ROUTING OF PEDESTRIAN TRAFFIC AROUND THE WORK, AND USING FLASHERS TO PROTECT THE WORK DURING NON-WORKING HOURS. TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MUTCD.
 - SAW CUT ALL PAVEMENTS, CURB AND SIDEWALKS AT LIMITS OF DEMOLITION. DAMAGED SECTIONS OUTSIDE THE DEMOLITION LIMITS SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
 - SHOULD THE CONTRACTOR IDENTIFY SITE OR MATERIAL CONDITIONS WHICH WARRANT CLARIFICATION OR MODIFICATION, NOTIFY THE VA PROJECT ENGINEER.
 - IF CONTAMINATED SOILS OR ANY UNUSUAL BURIED DEBRIS ARE ENCOUNTERED DURING EXCAVATION, CONTRACTOR SHALL CEASE WORK AND CONTACT THE VA PROJECT ENGINEER.
 - CONSTRUCTION STAKING, INCLUDING LIMITS OF DEMOLITION AND NEW CONSTRUCTION, SHALL BE PROVIDED BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE A REGISTERED LAND SURVEYOR TO OVERSEE THE STAKING OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL INSTALL OFFSET STAKES PRIOR TO DEMOLITION, SO REPLACEMENT OF ROADS, CURB & GUTTER, SIDEWALKS, AND OTHER FEATURES CAN BE ACCURATELY LOCATED.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT SURFACE IMPROVEMENTS CONSTRUCTED DRAIN PROPERLY. REPORT SUSPECT GRADE DESIGN TO VA PROJECT MANAGER PRIOR TO PLACING CONCRETE OR ASPHALT.
 - DEMOLISHED MATERIAL MAY BE STORED TEMPORARILY COORDINATE LOCATION WITH VA PROJECT ENGINEER. HAUL DEBRIS OFFSITE PRIOR TO COMPLETING RE-SURFACING OF ROADS ALONG THE HAUL ROUTE COORDINATED WITH VA PROJECT ENGINEER.
 - PAINTING OF CURBS SHALL MATCH PRE-CONSTRUCTION LOCATIONS AND COLORS.
 - MATERIALS TESTING WILL BE PROVIDED BY OWNER. CONTRACTOR SHALL REQUEST TESTS AT SPECIFIED INTERVALS AND GIVE ADEQUATE NOTIFICATION TO THE TESTING AGENCY. TEST RESULTS TO BE REPORTED WITHIN TWO DAYS TO OWNER, CONTRACTOR, AND A/E, EXCEPT IN THE CASE OF A FAILING TEST, WHICH SHALL BE REPORTED IMMEDIATELY.
- EROSION AND SEDIMENT CONTROL:**
THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLETING AND SUBMITTING A DETAILED EROSION CONTROL PLAN THE OWNER PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR HAS OVERALL RESPONSIBILITY FOR IMPLEMENTATION AND MAINTAINING EROSION CONTROL.
- DEMOLITION / EXCAVATION NOTES:**
- THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL DEMOLITION AND EXCAVATION IS PERFORMED IN A MANNER THAT COMPLIES WITH OSHA, DEPARTMENT OF LABOR, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND THE SPECIFICATIONS.
 - GRADING AND PREVENTATIVE MEASURES SHALL BE DONE AS NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO EXCAVATIONS, AND ANY OTHER WATER ACCUMULATING THEREIN SHALL BE PROMPTLY REMOVED. CONDITION & RE-COMPACT SOILS SUBJECTED TO SUBMERGED CONDITIONS.
 - CONTRACTOR SHALL NOTIFY THE VA PROJECT ENGINEER, IF UNSTABLE MATERIAL OR GROUND WATER IS ENCOUNTERED IN ANY EXCAVATION WHICH WILL REQUIRE CONSTRUCTION TECHNIQUES MORE STRINGENT THAN THE MEASURES CALLED FOR IN THE SPECIFICATIONS. AFTER SUCH NOTIFICATION, CONTRACTOR SHALL AWAIT DIRECTION FROM THE VA REPRESENTATIVE ON ACCEPTABLE CONSTRUCTION TECHNIQUES PRIOR TO RESUMING WORK.
 - VERIFY DEMOLITION LIMITS WITH VA PROJECT ENGINEER AFTER LAYOUT AND PRIOR TO DEMOLITION.
 - WHERE ASPHALT TO BE REMOVED IS ADJACENT TO CURBS TO REMAIN. THE CONTRACTOR SHALL USE FULL-DEPTH SAWCUTS OR OTHER METHODS TO AVOID DISTURBING AND DAMAGING THE CURBS. CURB SECTIONS WHICH ARE DAMAGED BY CONTRACTOR OPERATIONS SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
 - A "REPORT OF PAVEMENT SECTION THICKNESS" BY AMERICAN TECHNICAL SERVICES IS INCLUDED IN THE SPECIFICATIONS FOR INFORMATIONAL PURPOSES. CONTRACTORS SHOULD NOTE THE VARYING PAVEMENT THICKNESS THROUGHOUT THE CAMPUS, AS WELL AS VARYING THICKNESS AND QUALITY OF THE EXISTING BASE COURSE. IT IS THE INTENT OF THIS PROJECT TO RE-USE A REASONABLE AMOUNT OF ASPHALT MILLINGS AND RECLAIMED BASE COURSE. HOWEVER, THE ACTUAL QUANTITIES OF ASPHALT MILLINGS AND RECLAIMED BASE COURSE ALLOWED FOR RE-USE WILL BE DEPENDENT ON THE QUALITY OF THOSE MATERIALS.
 - REMOVAL OF ASPHALT SHALL BE COMPLETED BY MILLING.
 - FULL-DEPTH REMOVAL OF EXISTING BASE COURSE IS REQUIRED, FOR INSPECTION AND ASSESSMENT OF THE SUBGRADE BY THE OWNER.
 - RE-USE OF MATERIALS:
 - MILLED ASPHALT WILL NOT BE ALLOWED FOR USE IN THE NEW AC PAVEMENT.
 - UP TO 2-INCH THICKNESS (30% BY VOLUME) OF AGGREGATE BASE COURSE MATERIAL MAY CONSIST OF MILLED ASPHALT, PROVIDED THAT THE MILLED ASPHALT MEETS SPECIFIED GRADATION AND IS BLENDED INTO OTHER BASE COURSE, CONDITIONED, AND COMPACTED TO SPECIFIED DENSITIES.
 - UP TO 2-INCH THICKNESS (30% BY VOLUME) OF AGGREGATE BASE COURSE MATERIAL MAY CONSIST OF RECLAIMED EXISTING BASE COURSE, PROVIDED THAT THE EXISTING BASE COURSE IS PROCESSED TO

MEET SPECIFIED GRADATION AND IS BLENDED INTO OTHER BASE COURSE, CONDITIONED, AND COMPACTED TO SPECIFIED DENSITIES.

INCIDENTAL WORK:

A BID ITEM IS PROVIDED THEREFORE IN THE SCHEDULE FOR INCIDENTAL WORK. INCIDENTAL WORK SHALL INCLUDE ALL MISCELLANEOUS ITEMS NOT SPECIFICALLY INCLUDED IN BID SCHEDULE ITEMS, BUT WHICH MUST BE PERFORMED IN ORDER TO PROPERLY COMPLETE THE WORK. INCIDENTAL WORK SHALL INCLUDE, BUT NOT BE LIMITED TO:

- SAW CUTTING CONCRETE AND ASPHALT.
 - EXCAVATION FOR ROADWAY WIDENING AND SUBGRADE STABILIZATIONS AS CALLED OUT ON PLANS.
 - TRAFFIC CONTROL & CONSTRUCTION SIGNAGE
 - CONSTRUCTION FENCING AS REQUIRED TO PROTECT THE PUBLIC.
 - LOCATING AND PROTECTING UTILITY MANHOLES, VALVE BOXES, AND COVERS.
 - ADJUSTING MANHOLE COVERS, VALVE BOXES, AND OTHER UTILITY FEATURES TO MATCH FINAL GRADE.
 - WASTE DISPOSAL.
 - WATER FOR COMPACTION AND TEMPORARY IRRIGATION.
 - FERTILIZE, SEED AND MULCH CONTRACTOR USE AREAS.
 - CONTROL OF RUNOFF IN WORK AREAS.
 - RELOCATION OF HANDI-CAPPED PARKING SIGNS.
 - PROTECTION OF IRRIGATION SYSTEM.
 - RELOCATION OF IRRIGATION LATERALS, VALVES, AND SPRINKLERS AS NESSARY TO COMPLETE THE PROPOSED IMPROVEMENTS.
- CONTRACTOR SHALL PROTECT UTILITY RISERS WITHIN THE ROADWAY PRISM OR LIMITS OF DEMOLITION. SURFACE UTILITIES WERE VISUALLY LOCATED DURING DESIGN DATA SURVEYS; HOWEVER UTILITY LOCATES WERE NOT DONE AT THE TIME OF THE SURVEY. THEREFORE, CONTRACTOR SHALL CONTACT ONE-CALL AND VA MEDICAL CENTER STAFF FOR UTILITY LOCATES PRIOR TO PROCEEDING WITH THE WORK.
 - CONTRACTOR SHALL ADJUST MANHOLE COVERS, VALVE BOXES, AND OTHER UTILITY COVERS TO MATCH FINAL GRADE (SET COVERS 1/4 - INCH BELOW FINISH GRADE), USING ADJUSTING RINGS OR OTHER METHODS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO PAVING OPERATIONS.

WATER MAIN:

- THE WATER MAIN SHALL BE FURNISHED, INSTALLED, AND TESTED IN ACCORDANCE WITH THE PROJECT TECHNICAL SPECIFICATIONS FOR DOMESTIC WATER MAIN. PAYMENT WILL INCLUDE THE CONTRACTOR SHALL DISPOSE OF CHLORINATED WATER IN AN APPROVED MANNER.
- ALL PVC PIPE USED ON THIS PROJECT SHALL BE STANDARD C-900, CLASS 150, BELL AND SPIGOT TYPE PVC PIPE. ALL FITTINGS SHALL BE DUCTICLE IRON WITH MECHANICAL JOINTS AND SHALL BE RESTRAINED AS DESCRIBED IN THESE PLANS. PAYMENT FOR WATER MAIN JOINT RESTRAINTS SHALL BE CONSIDERED INCIDENTAL TO THE FITTINGS AND WATER MAIN BID ITEMS AND NO SEPARATE PAYMENT WILL BE MADE.
- IT IS ASSUMED THAT ALL EXISTING WATER AND APPURTENANCES ARE BURIED AT THE STANDARD DEPTH OF SIX (6) FEET. CONTRACTOR TO FIELD VERIFY DEPTH AND LOCATION OF EXISTING WATER MAIN AND OTHER UTILITIES. NEW MAINS SHALL BE INSTALLED AT A MINIMUM BURY DEPTH OF 6- FEET.

WATER MAIN ENCASEMENT:

- WATER MAIN OR SEWER ENCASEMENTS ARE NOT SHOWN ON THE PLANS. ENCASEMENT MATERIAL SHALL BE LOW STRENGTH CONCRETE (FLOWABLE FILL) IN ACCORDANCE WITH SECTION 31 23 23.33 OF THE TECHNICAL SPECIFICATIONS. ENCASEMENT SHALL COMPLETELY SURROUND THE PIPE SO AS TO FULLY ENCASE THE PIPE AND SHALL BE CONSTRUCTED AS SHOWN IN THE DETAILS, WHERE INDICATED ON PLANS OR REQUIRED BY THE SPECIFICATIONS. OTHER PIPE MAY ALSO BE ENCASED WITH CONTROLLED LOW STRENGTH MATERIAL IN ACCORDANCE WITH SECTION 31 23 23.33 OF THE TECHNICAL SPECIFICATIONS.
- MECHANICAL JOINT RESTRAINTS:**
- MECHANICAL JOINT RESTRAINTS SHALL BE USED ON ALL PROPOSED WATER MAIN FITTINGS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- PIPE DEFLECTION:**
- PIPE DEFLECTION IN RESTRAINED JOINT PVC PIPE SHALL NOT EXCEED THE MINIMUM ALLOWABLE RADIUS OF CURVATURE AS RECOMMENDED BY THE PIPE MANUFACTURER. WHERE DEFLECTIONS EXCEED THOSE RECOMMENDED, THE CONTRACTOR SHALL USE HIGH DEFLECTION COUPLINGS. A QUANTITY OF HIGH DEFLECTION COUPLINGS ARE SHOWN IN THESE PLANS. IF ADDITIONAL HIGH DEFLECTION COUPLINGS ARE REQUIRED, THE CONTRACTOR WILL COORDINATE THIS NEED AND RECEIVE APPROVAL FROM THE VA PROJECT ENGINEER.

- PIPE DEFLECTION AT FITTINGS SHALL BE WITHIN TOLERANCES RECOMMENDED BY THE PIPE AND / OR FITTING MANUFACTURER. ALLOWABLE DEFLECTION PARAMETERS SHALL BE INCLUDED IN THE PIPE SUBMITTAL AND SHALL BE CLEARLY MARKED AS SUCH.
- CHANGES IN HORIZONTAL AND VERTICAL ALIGNMENT SHALL BE MADE WITHIN MANUFACTURER'S RECOMMENDED TOLERANCES. ALL DISTURBED AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION AT PROJECT COMPLETION.



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ADMINISTRATION

HOT SPRINGS, SOUTH DAKOTA

REVISIONS:

Project Number: 568-13-207

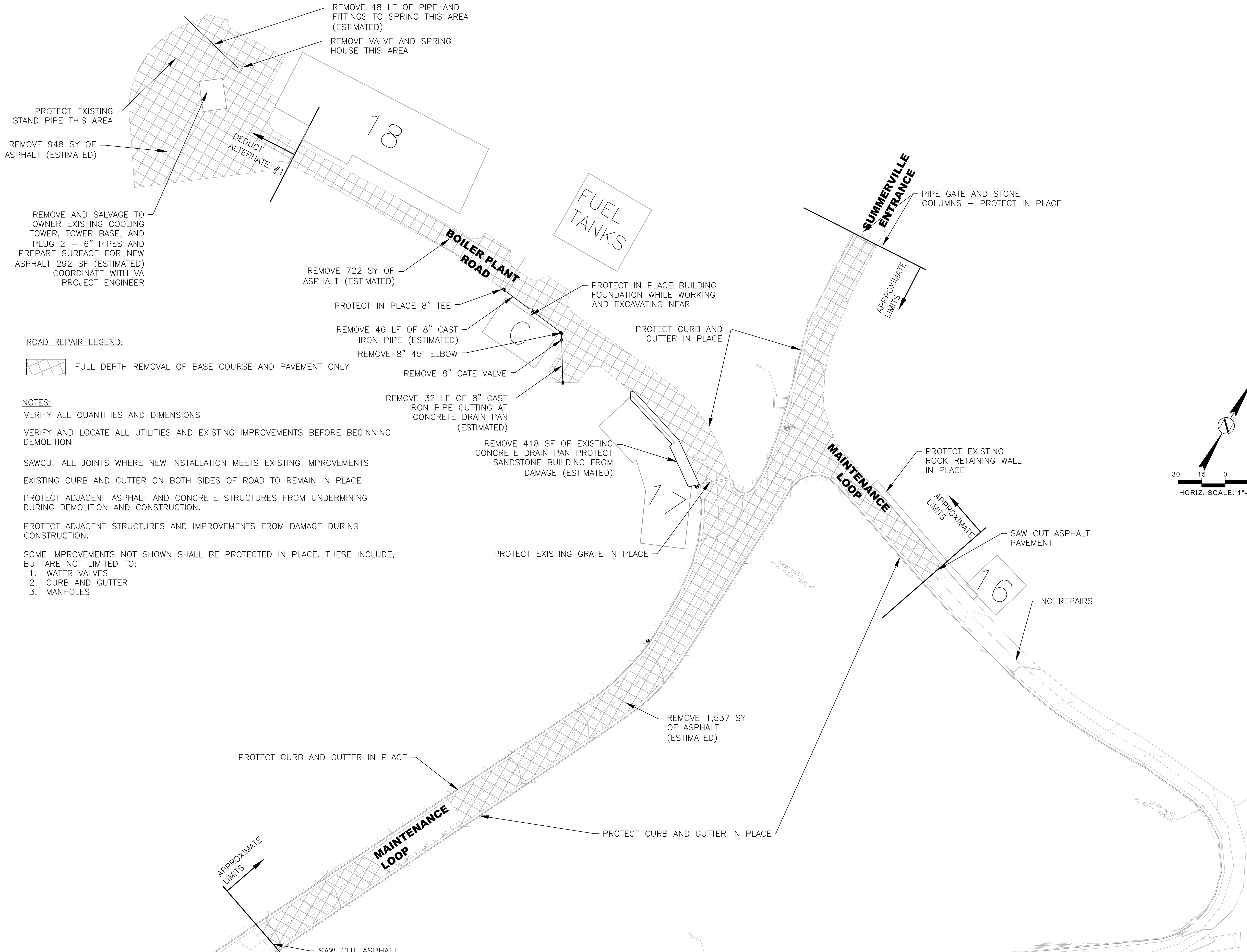
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GENERAL
NOTES

X-2

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HOT SPRINGS, SOUTH DAKOTA

REVISIONS

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DEMOLITION PLAN MAINTENANCE LOOP

C-1

W:\Projects\FY2013 Projects\568-13-207 Repair Summerville Entrance and BP Roads\Drawings\568-13-207 site plan.dwg 3/6/2013 10:39:22 AM

2.5' TRANSITION ASPHALT SHOULDER THIS AREA DEDUCT ALTERNATE #1

INSTALL NEW 41 SF OF SDDOT CLASS A RIPRAP AND FILTER FABRIC TO PROTECT OUTLET AREA FROM EROSION SEE DETAIL ALTERNATE #1 (ESTIMATED)

INSTALL NEW 50 LF OF 10" DUCTILE IRON PIPE AND 90° ELBOW SEE DETAIL DEDUCT ALTERNATE #1 (ESTIMATED)

INSTALL NEW 4 BOLLARDS CENTERED ON STANDPIPE SEE DETAIL DEDUCT ALTERNATE #1

INSTALL NEW 56 SF OF CONCRETE DRAIN PAN IF DEDUCT ALTERNATE #1 IS ACCEPTED (ESTIMATED)

18

DEDUCT ALTERNATE #1

INSTALL NEW 948 SY OF ASPHALT DEDUCT ALTERNATE #1 (ESTIMATED)

CONNECT TO EXISTING 8" TEE

PROPOSED 46 LF OF 8" PVC (ESTIMATED)

PROPOSED 8", 45° ELBOW

PROPOSED 8" GATE VALVE

PROPOSED 32 LF OF 8" PVC (ESTIMATED)

PROPOSED 8" COUPLER TO EXISTING CAST IRON MAIN

INSTALL NEW 418 SF OF CONCRETE DRAIN PAN (ESTIMATED)

INSTALL NEW 722 SY OF ASPHALT (ESTIMATED)

INSTALL EXPANSION JOINT SEE DETAIL

SUMMERVILLE ENTRANCE

APPROXIMATE LIMITS

MAINTENANCE LOOP

APPROXIMATE LIMITS

INSTALL PLASTIC FRICTION FREE JOINT WHERE CONCRETE MEETS SANDSTONE SEE DETAIL

INSTALL NEW 1537 SY OF ASPHALT (ESTIMATED)

MAINTENANCE LOOP

APPROXIMATE LIMITS

NOTES :

MATCH EXISTING CURB AND GUTTER EITHER SIDE ADJUST CENTERLINE TO MAINTAIN 2% CROWN

SAWCUT ALL JOINTS WHERE NEW INSTALLATION MEETS EXISTING IMPROVEMENTS

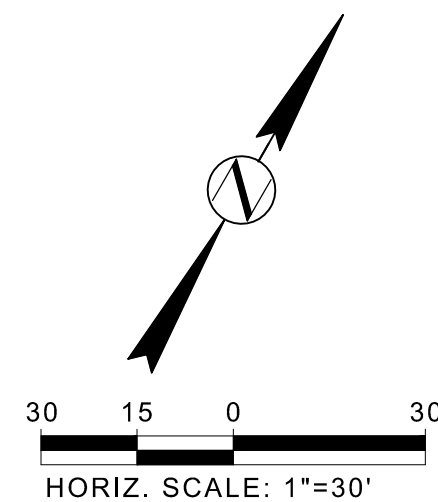
ADJUST ALL UTILITIES TO MEET NEW GRADE TO INCLUDE MANHOLES, VALVES, DOWNSPOUTS ETC.

ENSURE DRAINAGE OF IMPROVEMENTS BEFORE PLACING ASPHALT OR CONCRETE

VERIFY ALL DIMENSIONS AND QUANTITIES

Point Table				
Point #	Northing	Easting	Elevation	DESCRIPTION
1	418664.06	1134101.05	3510.26	TBC
2	418676.03	1134066.49	3509.88	TBC
3	418728.25	1134034.55	3510.88	TBC
4	418760.66	1134030.33	3512.70	TBC
5	418795.15	1134028.85	3515.40	TBC
6	418639.37	1134164.74	3512.66	EP

TBC = TOP BACK CURB
EP = EDGE PAVEMENT



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HOT SPRINGS, SOUTH DAKOTA

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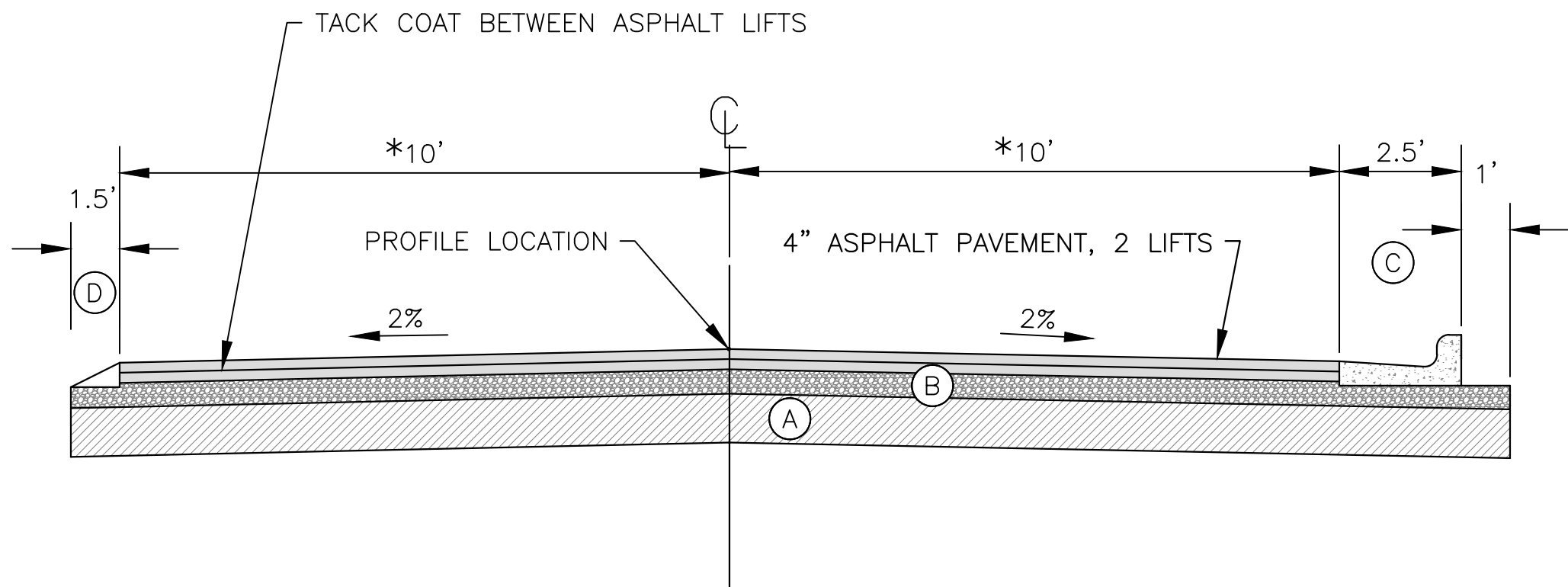
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MAINTENANCE LOOP
SITE PLAN

C-2

2013 DEPT OF VETERANS AFFAIRS

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ROAD TYPICAL SECTION

TYPICAL SECTION LEGEND

- (A) SUBGRADE – SCARIFY AND RECOMPACT TOP 8”
 - (B) 6” AGGREGATE BASE COURSE (4” UNDER C&G) NOT REQUIRED WHERE MEETING EXISTING CURB & GUTTER
 - (C) NEW 30” CURB & GUTTER EITHER SIDE WHERE REQUIRED
 - (D) SLOPE WHERE NO CURB & GUTTER EITHER SIDE WHERE REQUIRED, PARKING AREA WILL VARY SEE DRAWING
- * ROADWAY PAVEMENT WIDTHS MAY VARY – TO MATCH EXISTING WIDTHS
2% CROSS SLOPE MAY VARY



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REVISIONS:

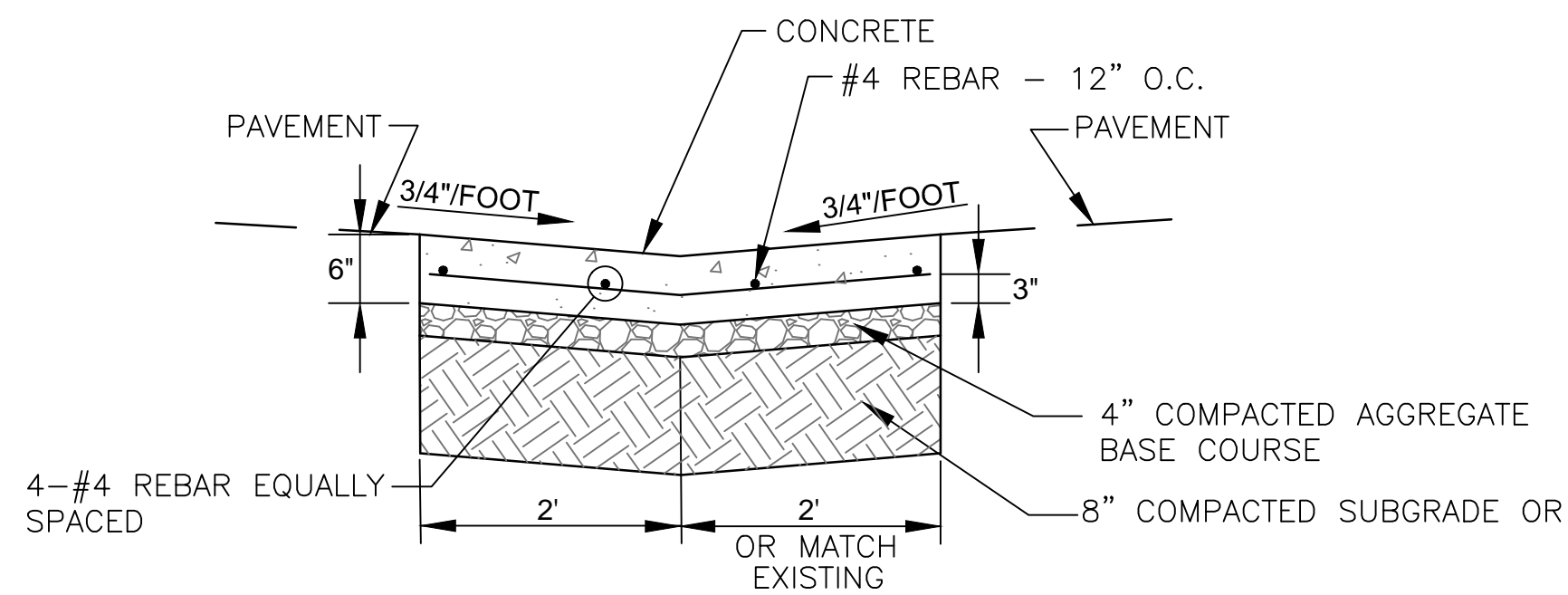
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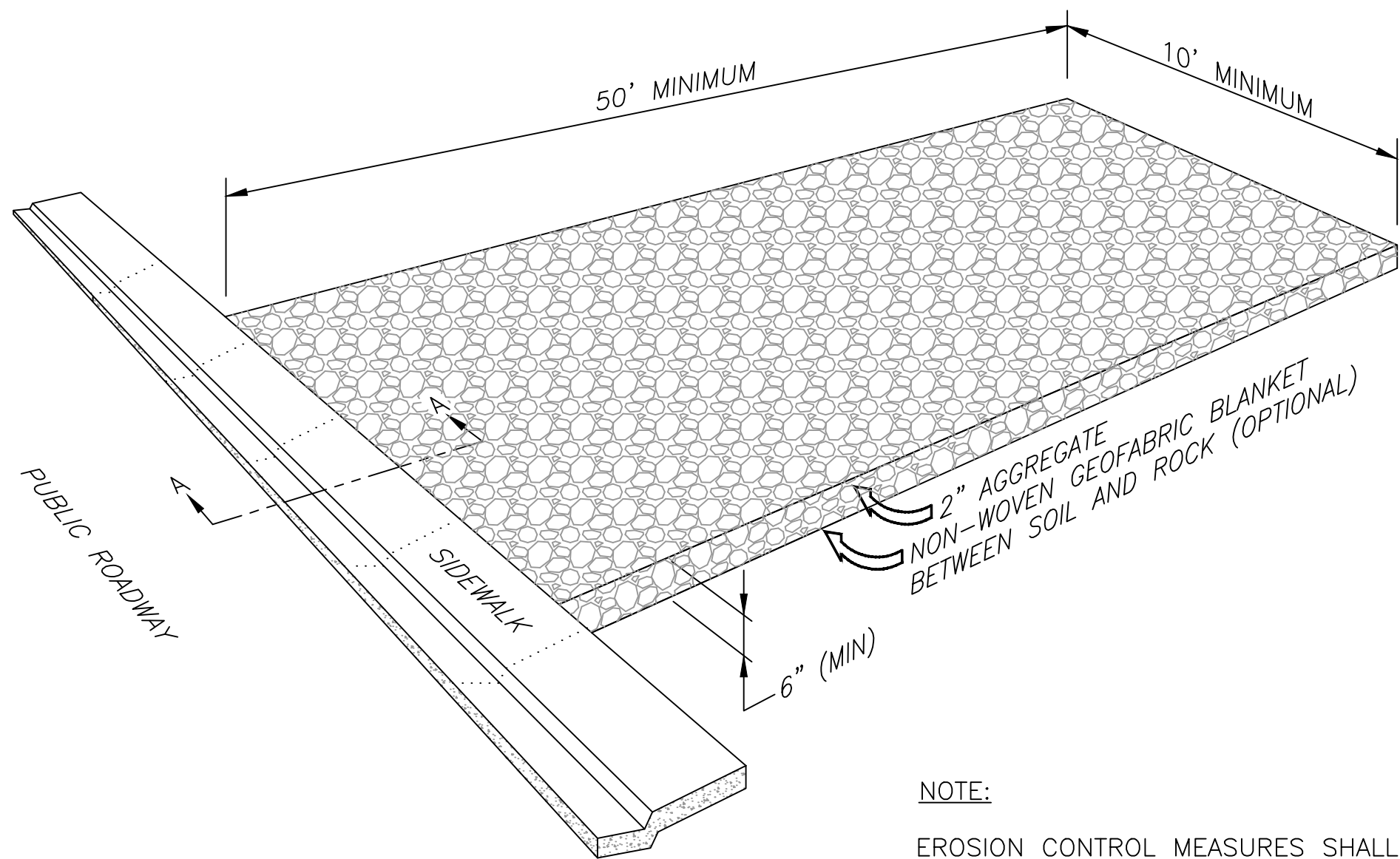
TYPICAL
SECTION

C-3

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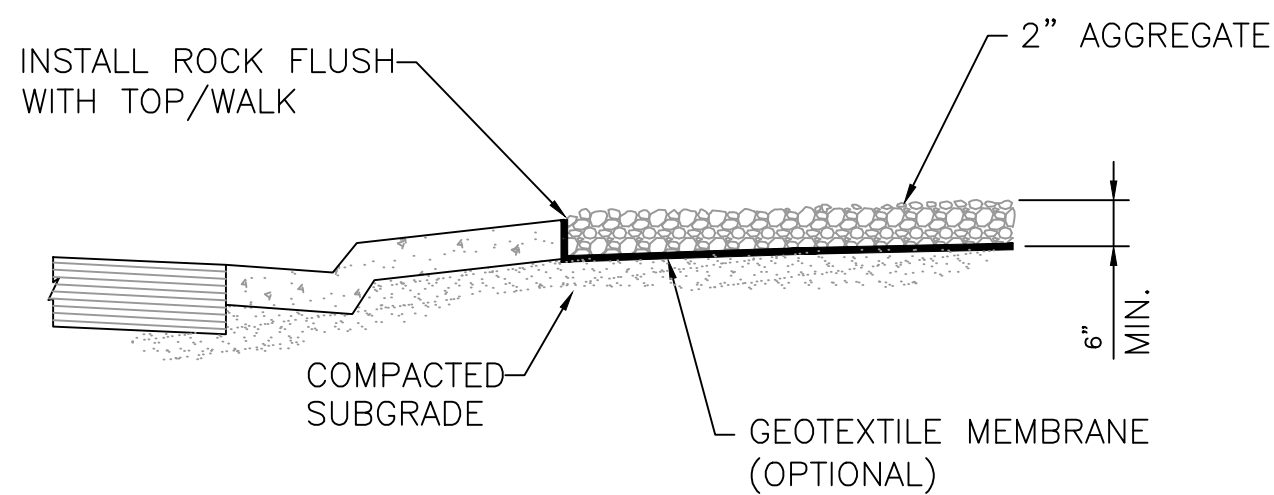


STANDARD DRAIN PAN DETAIL
NTS



NOTE:

EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES.

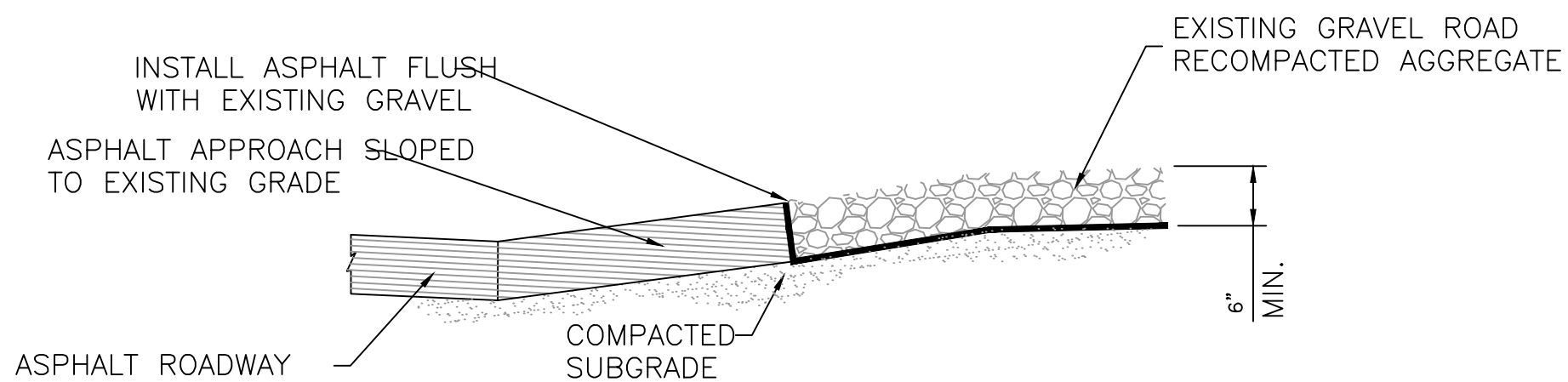


SECTION A-A

VEHICLE TRACKOUT CONTROL (VTC)
NTS

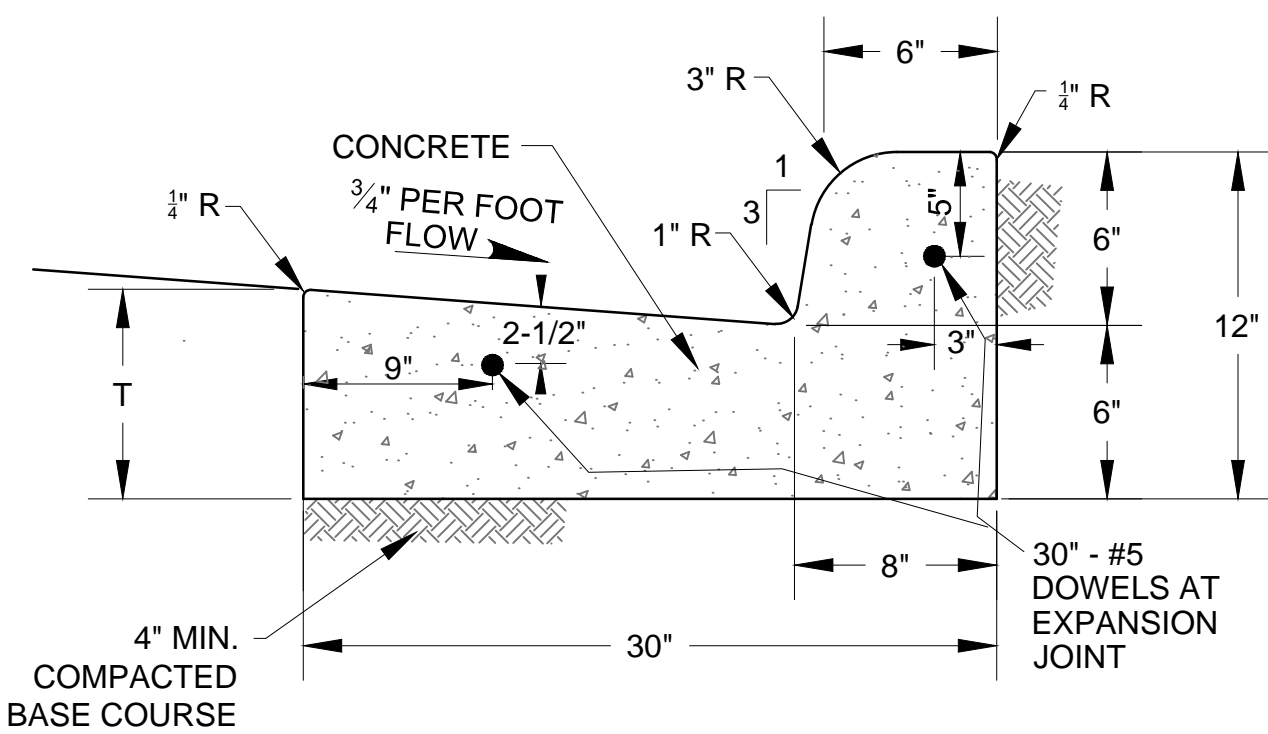
NOTES:

1. ALL ROCK TO BE REMOVED UPON COMPLETION OF CONSTRUCTION.
2. PUBLIC ROADWAY TO BE KEPT CLEAN AND FREE OF MUD, DIRT AND DEBRI AT ALL TIMES.
3. TO BE USED WHERE MILLING MEETS EXISTING ROADWAY.



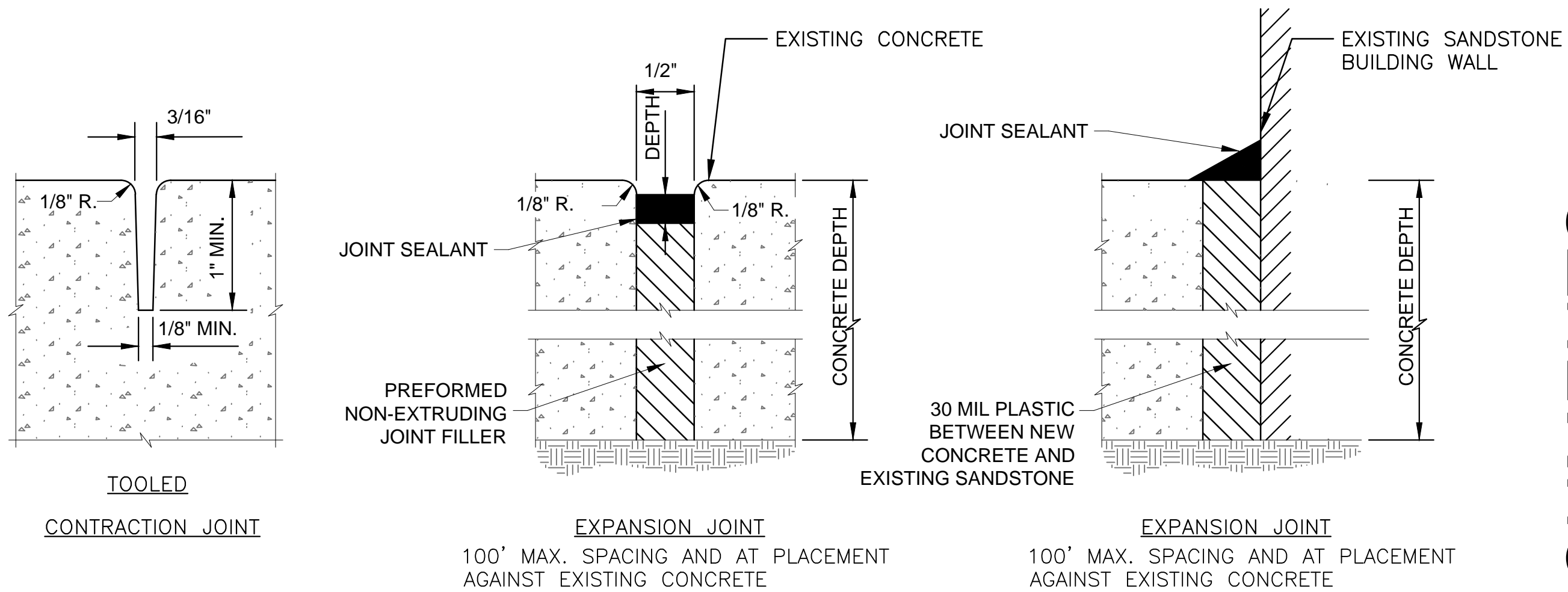
CROSS SECTION

ASPHALT APPROACH
NTS

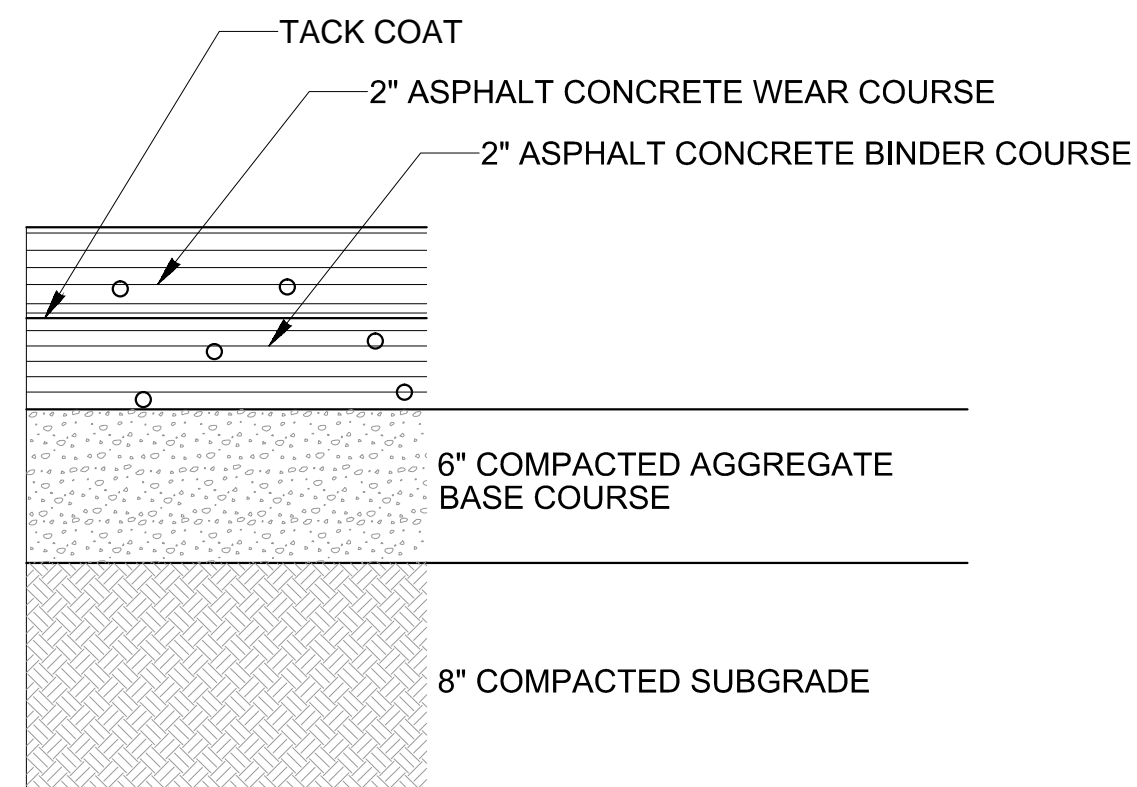


T = PAVEMENT THICKNESS OR 7 - 3/8" MINIMUM

30" WIDE STANDARD CURB AND GUTTER
NTS



CONCRETE JOINT DETAILS
NTS



NOTE: ASPHALT BINDER SHALL BE 64-22

TYPICAL ASPHALT PAVEMENT SECTION DETAIL
NTS



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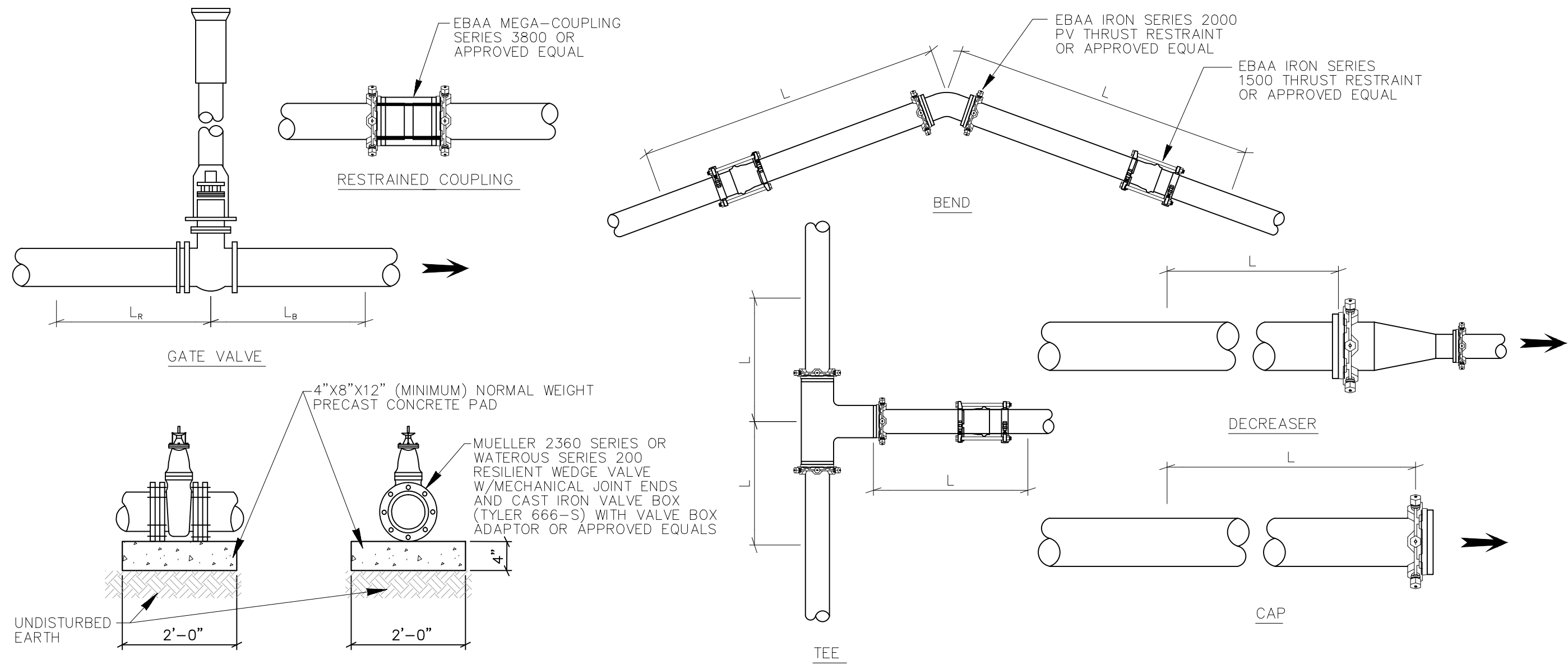
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SITE
CONSTRUCTION
DETAILS

C-4

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BID DOCUMENTS



THRUST BLOCKING FOR VALVES

JOINT RESTRAINT NOTES:

1. THE CONTRACTOR IS REQUIRED TO USE MECHANICAL JOINT THRUST RESTRAINT DEVICES INSTEAD OF CONCRETE THRUST BLOCKS FOR ALL BENDS, TEES, REDUCERS, CAPS, VALVES AND PIPE JOINTS AS REQUIRED. CONCRETE THRUST BLOCKS MAY BE REQUIRED IN SPECIAL CASES WHERE MAXIMUM RESTRAINED LENGTH CANNOT BE OBTAINED.

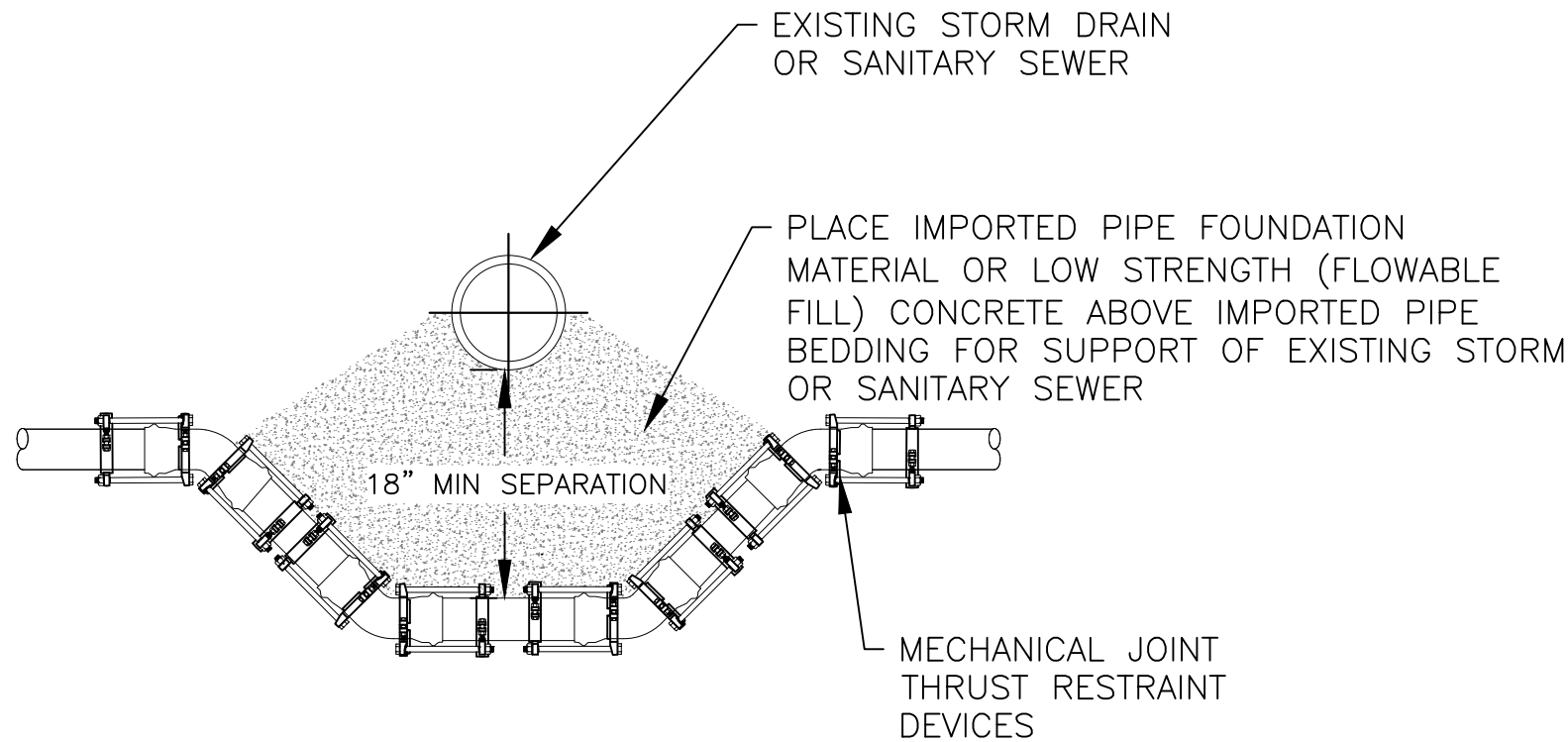
2. MECHANICAL JOINT THRUST RESTRAINT FOR VERTICAL BENDS SHALL INCLUDE THE RESTRAINT OF ALL JOINTS WITHIN THE DESIGNATED LENGTH AS SHOWN ON THE PLAN AND PROFILE VIEW OF THE PLANS. MECHANICAL JOINT THRUST RESTRAINT SHALL BE INCIDENTAL TO THE PIPE AND/OR FITTINGS.

3. THE FOLLOWING TABLE GIVES THE REQUIRED LENGTH (L) FOR WATER MAINS TO BE RESTRAINED WITH MECHANICAL JOINT THRUST RESTRAINTS INCLUDING FITTINGS, VALVES, AND PIPE JOINTS.

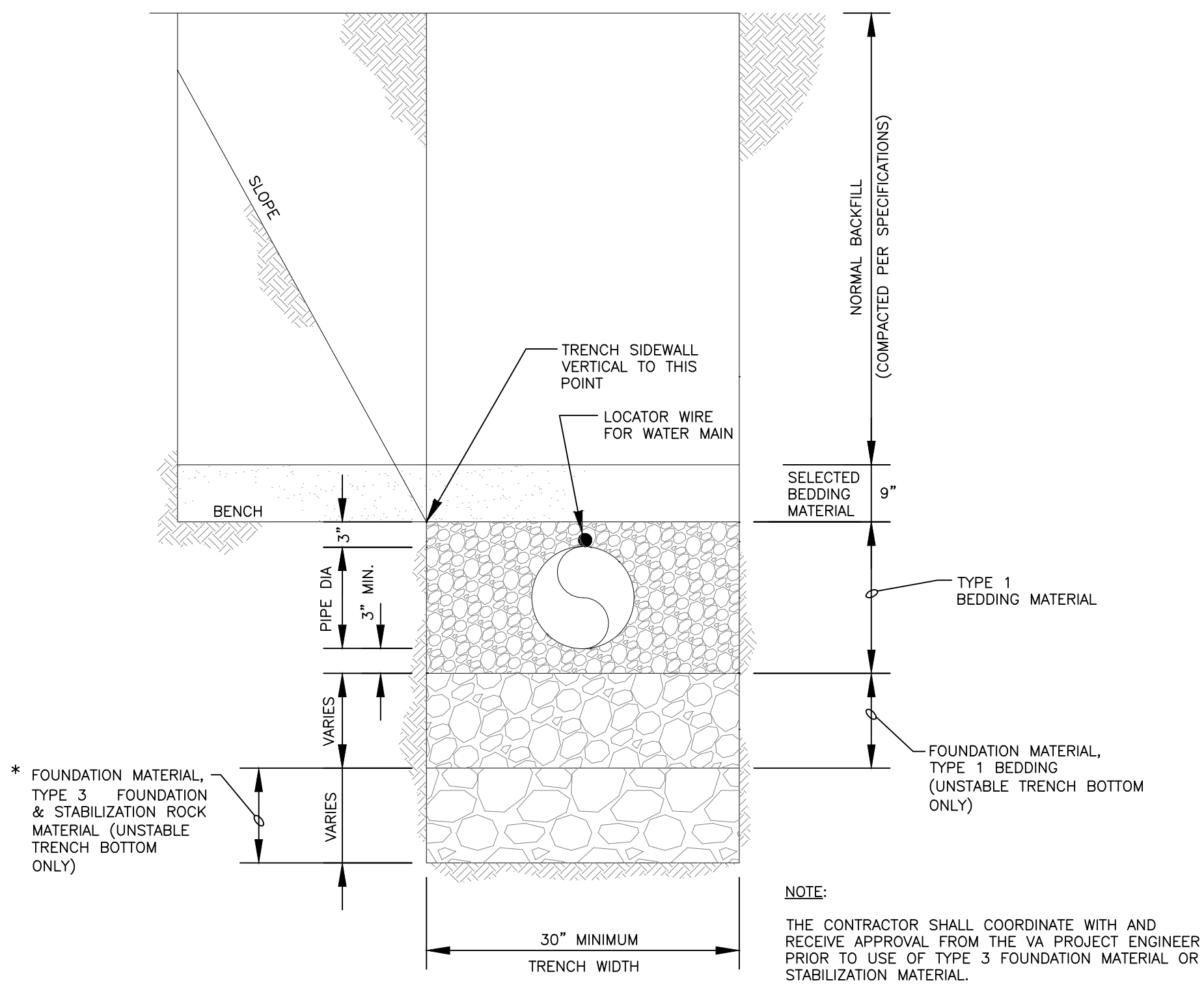
HORIZONTAL RESTRAINT LENGTH TABLE			
FITTING	L _R (FT)	L _B (FT)	
8" - 11 1/4" BEND	2	-	
8" - 22 1/2" BEND	4	-	
8" - 45" BEND	8	-	
8" - 90" BEND	19	-	
8"x8"x8" TEE	9	-	
8" DEAD END	41	-	
8" GATE VALVE	41	9	

VERTICAL RESTRAINT LENGTH TABLE			
FITTING	L _V (FT)	L _L (FT)	
8" - 11 1/4" BEND	6	2	
8" - 22 1/2" BEND	12	3	
8" - 45" BEND	24	6	

THRUST RESTRAINT DETAIL
NTS



WATER MAIN LOWERING DETAIL
NTS



TRENCH DETAIL FOR WATER MAINS
NTS

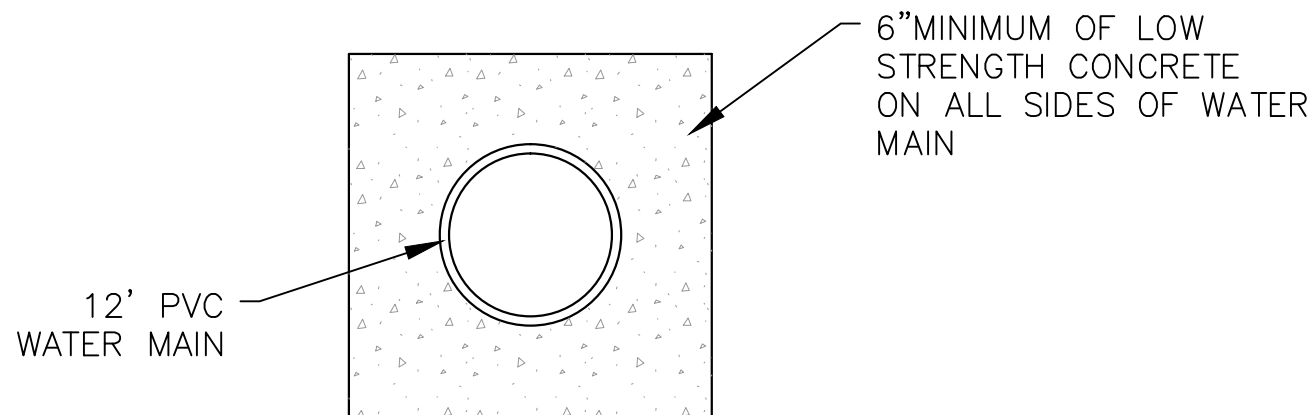
TYPE 1 - BEDDING MATERIAL

PASSING 1 INCH SIEVE	100%
PASSING 3/4 INCH SIEVE	90-100%
PASSING 3/8 INCH SIEVE	20-55%
PASSING #4 SIEVE	0-10%
PASSING #8 SIEVE	0-8%

TYPE 3 - FOUNDATION MATERIAL

PASSING A 3 INCH SIEVE	100%
PASSING A 1 INCH SIEVE	0-15%
PASSING A #4 SIEVE	0-8%

MISCELLANEOUS BEDDING MATERIAL FOR WATER MAINS
NTS



TYPICAL CONCRETE ENCASEMENT DETAIL
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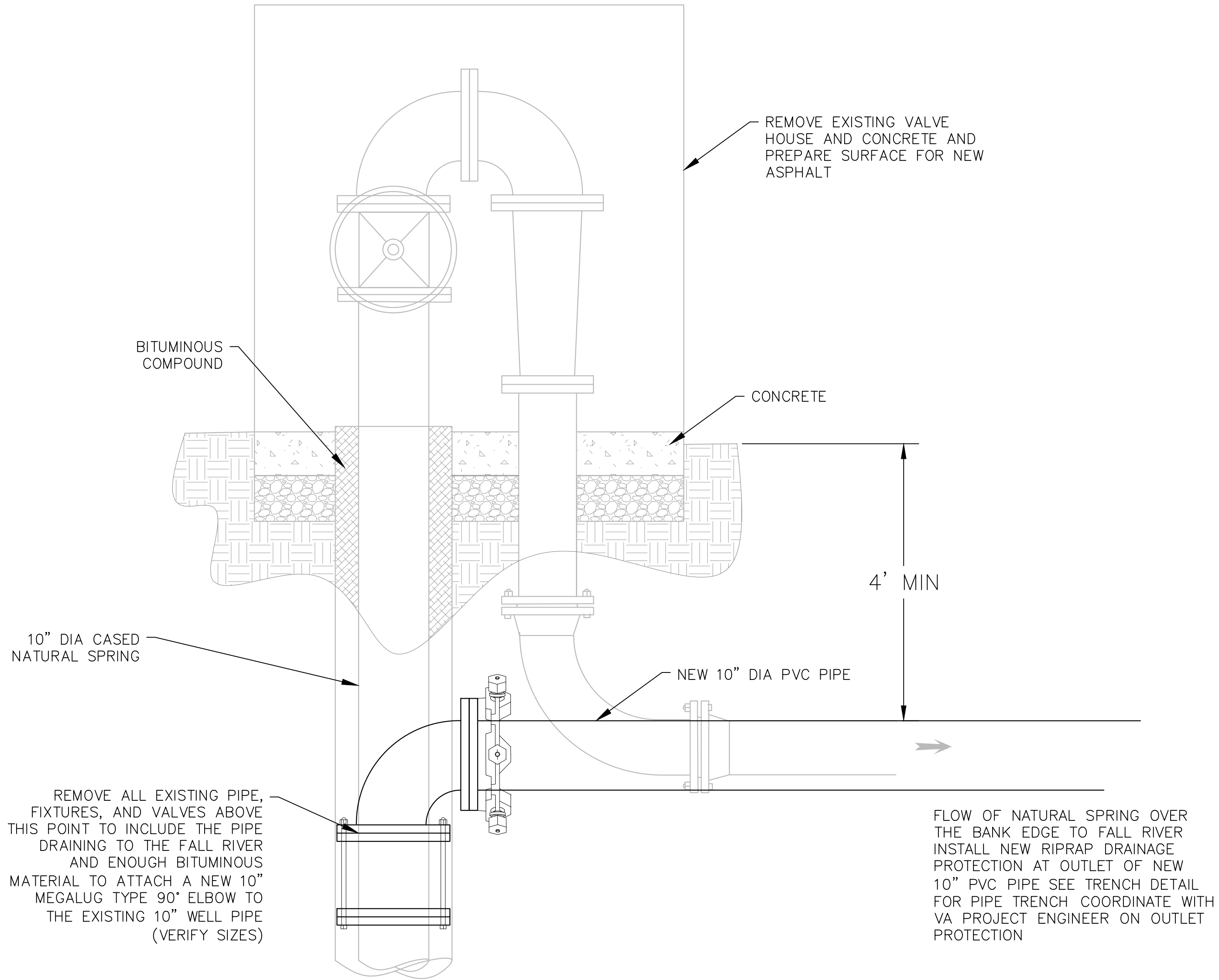
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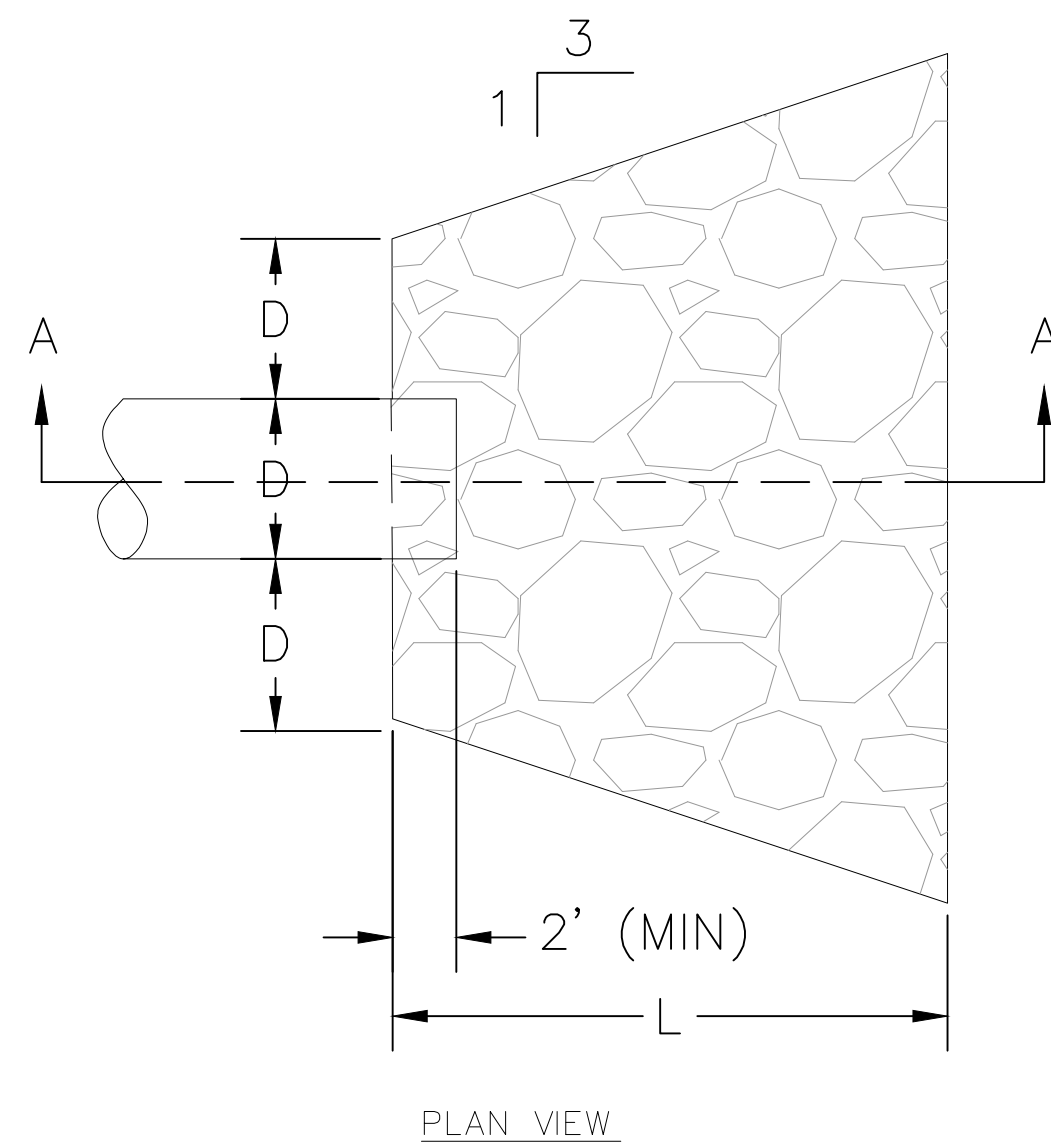
Date: 2/8/13

SITE
CONSTRUCTION
DETAILS

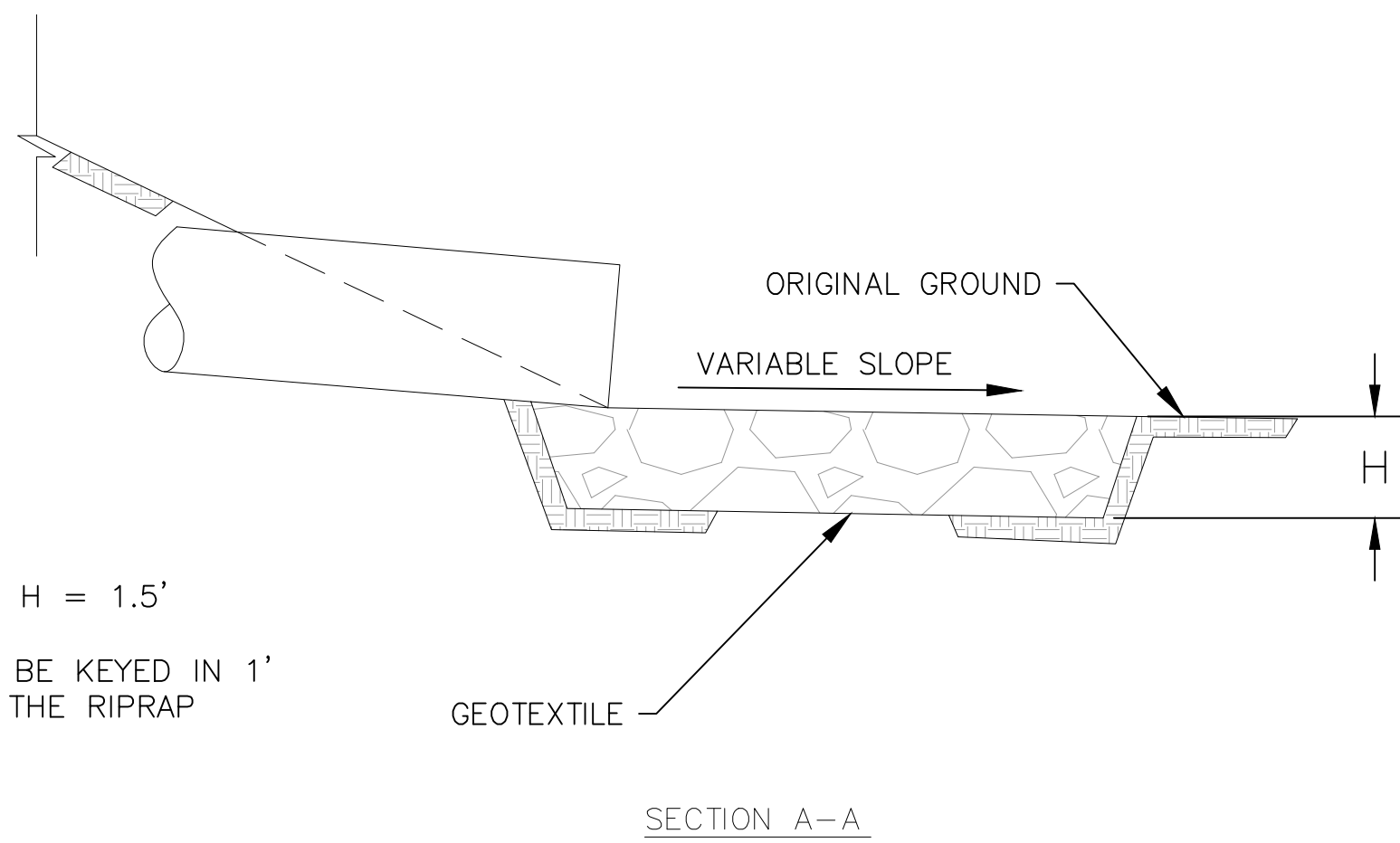
C-5



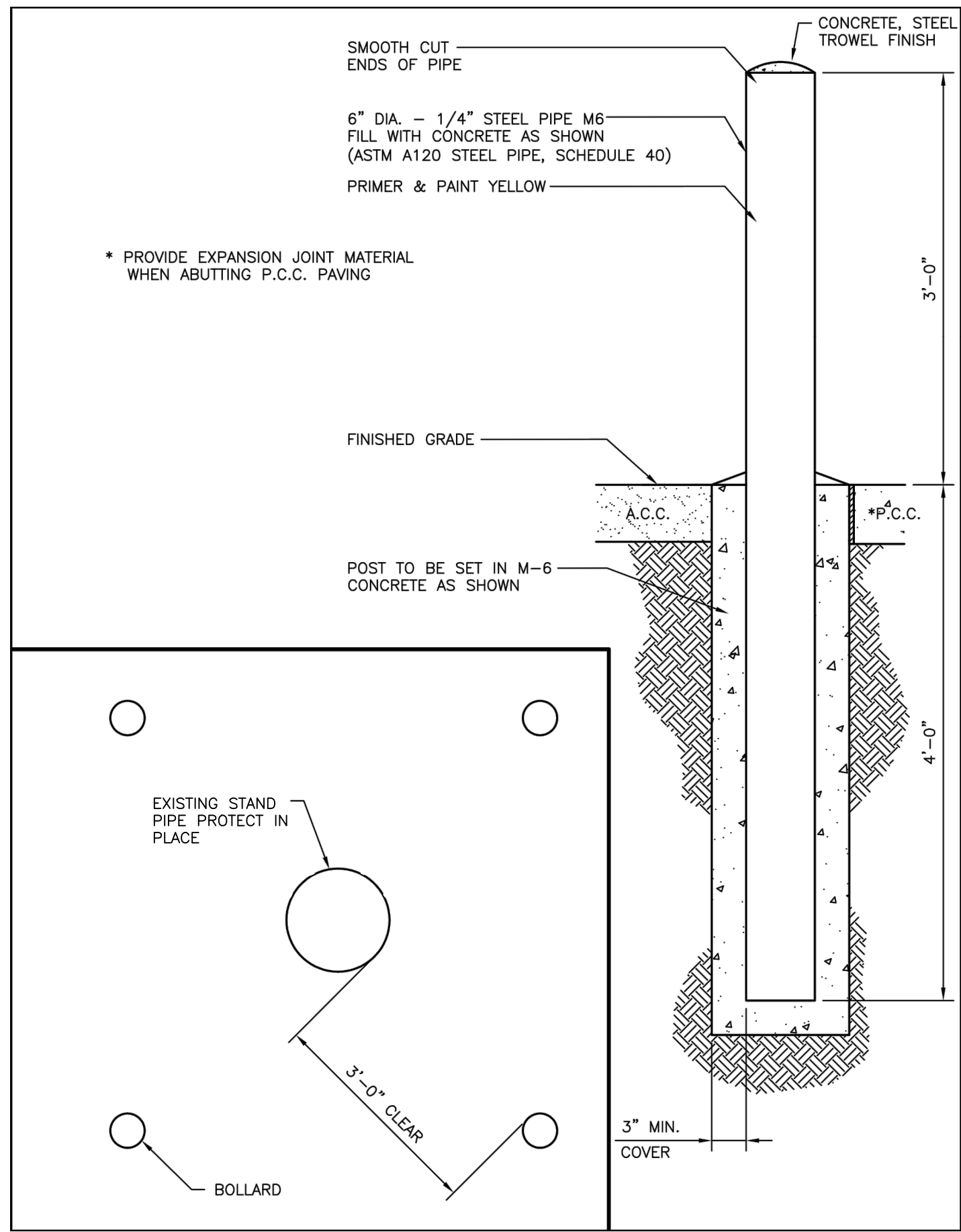
SPRING AND VALVE DETAIL
NTS



PIPE OUTLET DETAIL
NTS



BOLLARD INSTALLATION DETAIL
NTS



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SITE
CONSTRUCTION
DETAILS
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